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Arrow Arum, Duck Corn Peltandra virginica (L.) Kunth

Gene Silberhorn
Virginia Institute of Marine Science

Technical Report

Wetland Flora

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Arrow Arum
Duck Corn

***Peltandra virginica* (L.) Kunth**

Growth Habit and Diagnostic Characteristics

Peltandra virginica is a robust, emergent, fleshy perennial found in the intertidal zone of freshwater marshes and swamps. The most dominant and striking characteristic of this plant is the large, triangular or arrowhead-like leaf blade (20 to 50 cm long and 15 to 30 cm wide—8 to 20 by 6 to 12 in). The basal lobes may be half as long as the blade. The characteristic venation of the leaf—a prominent midrib and paired downward trending veins into the basal lobes—makes identification easy in absence of flowers or fruit.

In late May or June, an elongated, leaf-like, reproductive structure develops from the rhizome. The unique appendage resembles a pointed, rolled leaf (spathe), which surrounds, in clasping fashion, a fleshy, cylindrical inflorescence (spadix). These are characteristic features of the Araceae family to which this plant belongs. As fruits develop, the tip of the spathe decomposes, leaving a drooping, pod-like fruiting head.

Peltandra may be confused with two associated species that often occur in the intertidal zone, namely pickerelweed *(Pontederia cordata)* and arrowhead *(Sagittaria latifolia)*. The three can be easily differentiated; pickerelweed has a spike of blue flowers and heartshaped leaves and arrowhead has white flowers and arrowhead-like leaves, but without the three predominant veins as arrow arum. Arrow arum grows in dense clumps with leaf stalks (originating from large horizontal rhizomes) that attain heights of 0.5 to 2 m (2 to over 6 ft).

Density and Production

Arrow arum is a major component of the total production of tidal freshwater wetlands. Production estimates range from about 100 to over 1200 g (dry weight)/m^2 or up to 5 tons/acre/annum. These estimates do not consider the belowground biomass of the massive and dense rhizome. The highly foliated stems range from 10 to 20 per m^2. *Peltandra* is known to undergo rapid decompositon at the end of growing season.

Distribution

Not necessarily a coastal plant, arrow arum is found in wetland areas throughout eastern United States. In nontidal situations, it often borders lakes and ponds in the littoral zone and can tolerate shade in swamps and bottomland hardwood forests.

Habitat

In coastal wetlands, *Peltandra* usually grows in the soft sediments of the intertidal zone (between mean sea level and mean high water) in riverine freshwater marshes and swamps. It cannot tolerate salinities much above 0.5 ppt, hence it is almost always an indicator of freshwater conditions. Although arrow arum is often found in monospecific stands, it also co-dominates with pickerelweed, and is less commonly associated with arrowhead, bultongue *(Sagittaria falcata)*, giant bulrush *(Scirpus validus)* and wild rice *(Zizania aquatica)*.

Ecological Values/Benefits

In a holistic sense, the intertidal freshwater estuarine community, of which *Peltandra* is a major component, as well as the entire scope of tidal freshwater wetlands in general, are collectively very important as spawning areas for anadromous fishes. These systems, as well as contiguous nontidal wetlands, function as sinks for upland runoff which often is contaminated with excessive nutrients and other pollutants.

Specifically, the fleshy seeds of *Peltandra* are food for wood ducks and black ducks, hence one of the common names, duck corn. The dark green to black seeds are buoyant and are commonly found along shorelines many miles from the place of origin. . . even out to sea.

Hydrophytic Factor/Federal Delineation

According to the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* and the *National List of Plant Species that Occur in Wetlands: Virginia* (1988), *Peltandra virginica* is classified as an **obligate wetland plant (OBL)**. OBLs are plants that almost always occur in wetlands (<99% probability).

Peltandra virginica (L.) Kunth

Wetlands Program
School of Marine Science
Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, Virginia 23062
Dr. Carl Hershner, Program Director

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